# **Woods Hole Oceanographic Institution**

#### **2023 Summer Student Fellows**

#### **Research Projects**

### Victoria Abunaw, Cornell University

Visualizing and interpreting ecological change of zooplankton diversity on the Northeast U.S. Shelf Advisors: Mei Sato and Rubao Ji, Biology

#### Sebastian Alvarez, California State University: Channel Islands

Implications for Salt Marsh Restoration: Greenhouse Gas Emissions (CO<sub>2</sub>) During Tidal rewetting of a

Formerly Drained Salt Marsh

Advisor: Meagan Eagle, U.S. Geological Survey

### Andrea Belvis Aquino, University of Puerto Rico: Mayaguez

Ocean Salinity and Rainfall Variability: Predicting Wheat Yields in Australia

Advisor: Caroline Ummenhofer, Physical Oceanography

# Joseph Carrigg, Oregon State University

September Surface Energy Transition in the Beaufort Sea Analyzed through NASA's SASSIE Field Measurements

Advisors: Lisan Yu and Viviane Menezes, Physical Oceanography

## Elizabeth Companion, University of North Carolina at Asheville

Chthamalus fragilis: Reproductive timing, fecundity, and settlement face in the little grey barnacle

Advisor: Jesus Pineda, Biology

### lanna Gilbert, Brandeis University

Automatically Detecting Changes in Coral Reef Cover in St. John, USVI

Advisor: Yogesh Girdhar, Applied Ocean Physics and Engineering

### Yasmin Hamilton, Amherst College

Testing the Impact of Mg/Ca and  $[SO_4^{2+}]$  on the Growth and Biomineralization of Emiliania huxleyi Advisor: Adam Subhas, Marine Chemistry and Geochemistry

## Adin Handler, Harvard College

Assessing Pre-Filter Bias in Flow-Through Microplastic Sensor Advisor Anna Michel, Applied Ocean Physics and Engineering

### Miles Jordan, Florida Agricultural and Mechanical University

Movement ecology of deep-sea gastropods on inactive hydrothermal vent features on the East Pacific Rise

Advisor: Lauren Mullineaux, Biology

#### Julia Kelso, Cornell University

Effect of thermal tolerance supergene allelic variance on gene expression and thermal physiology in global invader Carcinus maenas

Advisor: Carolyn Tepolt, Biology

#### Maya Lozinsky, Scripps College

Ocean Literacy, Seafood Production & Carbon Sequestration in the Ocean Twilight Zone

Advisor: Michael Weir, Marine Policy Center

# AKM Sadman Mahmud, Bucknell University

Antarctic Bottom Water Warming in Eastern Pacific Southern Ocean

Advisor: Alison Macdonald, Physical Oceanography

#### Sara Martin Alis, University of Vigo (Spain)

Pathways of Glacial Meltwater from the Hudson Strait into the North Atlantic Ocean: Insights from Eddy-

Resolving Model Simulations

Advisor: Olivier Marchal, Geology and Geophysics

## Hunter Milles, Oberlin College

Characterizing seasonal whale shark habitat and distribution in the western North Atlantic using species distribution modeling

Advisor: Camrin Braun, Biology

## Katherine Papas, University of Massachusetts Amherst

Is CaCO₃ preservation tied to organic carbon fluxes in the central equatorial Pacific?

Advisor: Kassandra Costa, Geology and Geophysics

#### Jillian Paquette, Davidson College

Ciliate seasonality across the New England Shelf

Advisor: Heidi Sosik, Biology

# Kiran Patil, Juniata College

Helium and Carbon Isotope Systematics of the Andean Convergent Margin

Advisor: Peter Barry, Marine Chemistry and Geochemistry

## Valeria Pérez Rivera, University of Puerto Rico: Mayaguez

The Effects of Storm Events on Soil Temperature in Salt Marshes

Advisor: Rob Sohn, Geology and Geophysics

## Casper Pratt, California Polytechnic State University: San Luis Obispo

Effect of Olivine Dissolution on Marsh Carbonate System

Advisor: Zhaohui Aleck Wang, Marine Chemistry and Geochemistry

# Cody Quiroz, University of Michigan

Evaluating Dissolved Organic Carbon Recovery via Nanofiltration

Advisor: Collin Ward, Marine Chemistry and Geochemistry

#### Michelle Sangillo, Worcester Polytechnic Institute

Investigating drivers of winter wave events in the Alaskan Arctic Advisor: Madison Smith, Applied Ocean Physics and Engineering

## Nora Sauers, North Carolina State University

Identifying Heat Tolerant Strains of Sugar Kelp (Saccharina latissima)

Advisor: Scott Lindell, Applied Ocean Physics and Engineering

# Annabel Schreiber, University of Florida

Estimating sediment greenhouse gas production during restoration of the Herring River Estuary

Advisor: John Pohlman, U.S. Geological Survey

### Charlotte Simpson, University of Oxford (UK)

Using computed tomography to characterize ice rafted debris in Kobbefjord, Greenland over the last 4,800 years

Advisor: Jeffrey Donnelly, Geology and Geophysics

# Nash Ward, University of Utah

Watching Ice Melt, A laboratory investigation into the effects of sediment on iceberg melt rate Advisors: Alan Condron and Claudia Cenedese, Geology and Geophysics, and Physical Oceanography

# Tsugumi Yamashita, Clark University

Nutritional Access and Global Seafood Trade Advisor: Yaqin Liu, Marine Policy Center

# Connor Young, University of Rhode Island

Design of a Small-Scale Underwater Sensor Platform Advisor: Matt Long, Marine Chemistry and Geochemistry

# Catherine Zhang, Yale University

The Changing Seasonality of the Atlantic Meridional Overturning Circulation

Advisor: Nicolas Foukal, Physical Oceanography